## SUBSTITUTE SENATE BILL 5814

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State of Washington 60th Legislature 2007 Regular Session

By Senate Committee on Early Learning & K-12 Education (originally sponsored by Senators McAuliffe, Hobbs, Rasmussen, Kauffman, Eide, Kohl-Welles, Murray, Marr, Spanel, Shin, Oemig, Kilmer and Delvin)

READ FIRST TIME 02/28/07.

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AN ACT Relating to educational opportunities in mathematics, science, and technology; amending RCW 28A.230.130 and 28A.230.130; adding a new section to chapter 28A.300 RCW; adding a new section to chapter 28B.76 RCW; creating a new section; providing an effective date; and providing an expiration date.

## 7 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. Sec. 1. The legislature finds that knowledge, skills, and opportunities in mathematics, science, and technology should be increased for all students in Washington. The legislature intends to foster capacity between and among the educational sectors to enable continuous and sustainable growth of the learning and teaching of mathematics, science, and technologies. The legislature intends to foster high quality mathematics, science, and technology programs to increase the number of students in the kindergarten through twelfth grade pipeline who are prepared and aspire to continue in the areas of mathematics, science, and technology, whether it be at a college, university, or in the workforce.

p. 1 SSB 5814

**Sec. 2.** RCW 28A.230.130 and 2003 c 49 s 2 are each amended to read 2 as follows:

- (1) All public high schools of the state shall provide a program, directly or in cooperation with a community college or another school district, for students whose educational plans include application for entrance to a baccalaureate-granting institution after being granted a high school diploma. The program shall help these students to meet at least the minimum entrance requirements under RCW 28B.10.050.
- (2) All public high schools of the state shall provide a program, directly or in cooperation with a community or technical college, a skills center, an apprenticeship committee, or another school district, for students who plan to pursue career or work opportunities other than entrance to a baccalaureate-granting institution after being granted a high school diploma. These programs may:
- (a) Help students demonstrate the application of essential academic learning requirements to the world of work, occupation-specific skills, knowledge of more than one career in a chosen pathway, and employability and leadership skills; and
- (b) Help students demonstrate the knowledge and skill needed to prepare for industry certification, and/or have the opportunity to articulate to postsecondary education and training programs.
- (3) A middle school that receives approval from the office of the superintendent of public instruction to provide a career and technical program directly to students shall receive funding at the same rate as a high school operating a similar program. Additionally, a middle school that provides a hands-on experience in math and science with an integrated curriculum of academic content and career and technical education, and includes a career and technical education exploratory component shall also qualify for the career and technical education funding.
- (4) The state board of education, upon request from local school districts, may grant waivers from the requirements to provide the program described in subsections (1) and (2) of this section for reasons relating to school district size and the availability of staff authorized to teach subjects which must be provided. In considering waiver requests related to programs in subsection (2) of this section, the state board of education shall consider the extent to which the

SSB 5814 p. 2

- school district has offered such programs before the 2003-04 school year.
- **Sec. 3.** RCW 28A.230.130 and 2006 c 263 s 407 are each amended to 4 read as follows:

- (1) All public high schools of the state shall provide a program, directly or in cooperation with a community college or another school district, for students whose educational plans include application for entrance to a baccalaureate-granting institution after being granted a high school diploma. The program shall help these students to meet at least the minimum entrance requirements under RCW 28B.10.050.
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- (a) Help students demonstrate the application of essential academic learning requirements to the world of work, occupation-specific skills, knowledge of more than one career in a chosen pathway, and employability and leadership skills; and
- (b) Help students demonstrate the knowledge and skill needed to prepare for industry certification, and/or have the opportunity to articulate to postsecondary education and training programs.
- (3) A middle school that receives approval from the office of the superintendent of public instruction to provide a career and technical program directly to students shall receive funding at the same rate as a high school operating a similar program. Additionally, a middle school that provides a hands-on experience in math and science with an integrated curriculum of academic content and career and technical education, and includes a career and technical education exploratory component shall also qualify for the career and technical education funding.
- NEW SECTION. Sec. 4. A new section is added to chapter 28A.300 RCW to read as follows:
- 35 The superintendent of public instruction shall provide support for

p. 3 SSB 5814

statewide coordination for math, science, and technology, including employing a statewide director for math, science, and technology. The duties of the director shall include, but not be limited to:

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- (1) Subject to the availability of funds, obtain a statewide license, or otherwise obtain and disseminate, an interactive, project-based high school and middle school technology curriculum that includes a comprehensive professional development component for teachers and, if possible, counselors, and also includes a systematic program evaluation. The curriculum must be distributed to all school districts, or as many as feasible, by the 2007-08 school year;
- (2) Subject to available funds, supporting a public-private partnership to assist school districts with implementing an ongoing, inquiry-based science program that is based on a research-based model of systemic reform and aligned with the Washington state science grade level expectations;
- (3) Subject to available funds, supporting a public-private partnership to provide enriching opportunities in mathematics, engineering, and science for underrepresented students in grades kindergarten through twelve using exemplary materials and instructional approaches;
- (4) In an effort to increase precollege and prework interest in math, science, and technology fields, in collaboration with the community and technical colleges, the four-year institutions of higher education, and the workforce training and education coordinating board, conducting outreach efforts to attract middle and high school students to careers in math, science, and technology and to educate students about the coursework that is necessary to be adequately prepared to succeed in these fields;
- (5) Coordinating youth opportunities in math, science, and technology, including facilitating student participation in school clubs, state-level fairs, national competitions, and encouraging partnerships between students and university faculty or industry to facilitate such student participation;
- (6) Developing and maintaining public-private partnerships to generate business and industry assistance to accomplish the following:
- 36 (a) Increasing student engagement and career awareness, including 37 increasing student participation in the youth opportunities in 38 subsection (5) of this section;

SSB 5814 p. 4

1 (b) Creation and promotion of student scholarships, internships, 2 and apprenticeships;

- (c) Provision of relevant teacher experience and training, including on-the-job professional development opportunities;
- (d) Upgrading kindergarten through twelfth grade school equipment and facilities to support high quality math, science, and technology programs;
- (7) Assembling a cadre of inspiring speakers employed or experienced in the relevant fields to speak to kindergarten through twelfth grade students to demonstrate the breadth of the opportunities in the relevant fields as well as share the types of coursework that is necessary for someone to be successful in the relevant field;
- (8) Providing technical assistance to schools and school districts, including working with counselors in support of the math, science, and technology programs; and
  - (9) Reporting annually to the legislature about the actions taken to provide statewide coordination for math, science, and technology.
- NEW SECTION. Sec. 5. A new section is added to chapter 28A.655 19 RCW to read as follows:
  - (1) Subject to available funding, by December 1, 2008, the superintendent of public instruction shall develop essential academic learning requirements and grade level expectations for educational technology literacy and technology fluency that identify the knowledge and skills that all public school students need to know and be able to do in the areas of technology and technology literacy. The development process shall include a review of current standards that have been developed or are used by other states and national and international technology associations. To the maximum extent possible, the superintendent shall integrate goal four and the knowledge and skill areas in the other goals in the technology essential academic learning requirements.
  - (a) As used in this section, "technology literacy" means the ability to responsibly, creatively, and effectively use appropriate technology to communicate; access, collect, manage, integrate, and evaluate information; solve problems and create solutions; build and share knowledge; and improve and enhance learning in all subject areas and experiences.

p. 5 SSB 5814

(b) Technology fluency builds upon technology literacy and is demonstrated when students: Apply technology to real-world experiences; adapt to changing technologies; modify current and create new technologies; and personalize technology to meet personal needs, interests, and learning styles.

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- (2)(a) Subject to available funding, the superintendent shall 6 7 obtain or develop education technology assessments that may be administered in the elementary, middle, and high school grades to 8 assess the essential academic learning requirements for technology. 9 10 The assessments shall be designed to be classroom or project-based so that they can be embedded in classroom instruction and be administered 11 and scored by school staff throughout the regular school year using 12 13 consistent scoring criteria and procedures. By the 2010-11 school year, these assessments shall be made available to school districts for 14 the districts' voluntary use. If a school district uses the 15 assessments created under this section, then the school district shall 16 17 notify the superintendent of public instruction of the use. superintendent shall report annually to the legislature on the number 18 of school districts that use the assessments each school year. 19
- 20 (b) Beginning December 1, 2010, and annually thereafter, the 21 superintendent of public instruction shall provide a report to the 22 relevant legislative committees regarding the use of the assessments.
- NEW SECTION. Sec. 6. A new section is added to chapter 28B.76 RCW to read as follows:
  - As part of the state needs assessment process conducted by the board in accordance with RCW 28B.76.230, the board shall assess the need for additional baccalaureate degree programs in Washington that specialize in teacher preparation in mathematics, science, and technology. If the board determines that there is a need for additional programs, then the board shall encourage the appropriate institutions of higher education or institutional sectors to create such a program.
- NEW SECTION. Sec. 7. Section 2 of this act expires September 1, 2009.

SSB 5814 p. 6

- 1 <u>NEW SECTION.</u> **Sec. 8.** Section 3 of this act takes effect September
- 2 1, 2009.

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p. 7 SSB 5814